

AIMS AND SCOPE OF VARIOUS BIOMECHANICAL MODALITIES PART 3

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PARALLEL BAR:

- Physical therapy parallel bars are devices used in rehabilitation facilities to assist patients in learning to walk after injury or disability.
- They are used to help patients regain strength, balance, range of motion and independence.
- They are used for coordination exercises and concise movements that work more than one joint and muscle.
- This type of training progresses to walking with [mobility aids](#) such as [walkers](#), [crutches](#), or [walking canes](#).
- Gait training can help patients regain their normal ambulatory motion.



ROWING MACHINE



- Rowing machines helps to expand lungs in an excellent way. They enhance stamina, resistance and strength, all at the same time. As a result, lungs capacity gets bigger and better. At the same time, regular training make use of the [heart](#). With workout, the blood flow boosts which enhances heart strength.

- rowing machines not only works on upper side of the body, as most people believe, but also they work the lower side of the body. To be more specific. As you row, you will work your back, shoulders, arms and abs. But when you slide back, you will make use of your hips, your legs, your butt, and your torso too!

- rowing machines are machines that are used to prepare athletes for racing against others on lakes, rivers or oceans. The sport can be both recreational, focusing on learning the required techniques, or competitive where overall fitness plays a large role. The rowing machine works and strengthens multiple muscle groups and is one of the leading seated cardiovascular exercise.



Advantages of Indoor Rowing Machine

- Total Body Workout
- Greater Flexibility
- Superior Conditioning
- Burns Calories
- Lifelong Pursuit
- Impact-Free
- Time Efficient
- It's FUN!

TRACTION



- Traction machine is use used to relieve pain and restore muscle function by mobilizing muscles, ligaments and joints. Traction machines are clinically proven to be effective in pain treatment particularly for cervical and lumbar pain. Traction Machine helps in reducing disc pressure, relax muscles, relieve nerve root compression and improve blood flow.
- It can use for both cervical and lumbar region.

TYPE OF TRACTION

- **Continuous Traction** – Continuous or bed traction uses low weights for extended periods of time (up to several hours at a time). This long duration requires that only small amounts of weight be used. It is generally believed that this type of traction is ineffective in actually separating the spinal structures. In other words, the patient cannot tolerate weights great enough to cause separation of the vertebrae for that length of time.
- **Sustained Traction** – This type of traction involves heavier weights applied steadily for short periods of time (for periods from a few minutes up to 1 hr.). Sustained traction is sometimes referred to as static traction.
- **Intermittent Mechanical Traction** – Intermittent traction is similar to sustained traction in intensity and duration but utilizes a mechanical unit to alternately apply and release the traction force at preset intervals
- **Manual Traction** – Manual traction is applied as the clinician's hands and/or a belt are used to pull on the patient's legs. It is usually applied for a few seconds duration or can be applied as a sudden, quick thrust
- **Auto traction** – Auto traction utilizes a specially designed table that is divided into two sections that can be individually tilted and rotated. The patient provides the traction force by pulling with the arms and/or pushing with the feet. Investigations of auto traction have reported favorable clinical results but no change in size or location of lumbar disc herniation

- **Positional Traction** – This form of traction is applied by placing the patient in various positions using pillows, blocks, or sandbags to effect a longitudinal pull on the spinal structures. It usually incorporates lateral bending and is only affected to one side of the spinal segment
- **Gravity lumbar traction** – This involves using a chest harness to secure the patient as the treatment table is tilted to a vertical position, thereby using the weight of the lower half of the body to provide a traction force.